

What is claimed is:

1 1. A method for interactive visual analysis of
2 interactions among entities, where entities are
3 individuals or groups, which comprises:
4 collecting interaction data;
5 processing said collected interaction data with
6 connectivity and diversity measures; and
7 displaying said processed interaction data and
8 appropriate raw interaction data for interaction analyses.

1 2. The method of claim 1, wherein said collecting
2 interaction data comprises use of network surveys.

1 3. The method of claim 1, wherein said collecting
2 interaction data comprises monitoring of e-mail traffic.

1 4. The method of claim 1, wherein said collecting
2 interaction data comprises monitoring of telephone traffic.

1 5. The method of claim 1, wherein said collecting
2 interaction data comprises monitoring of access to shared
3 resources.

1 6. The method of claim 1, wherein said connectivity
2 measure is a recursive mathematical algorithm that employs
3 a decay factor to account for the effects of indirect
4 interactions among entities.

1 7. The method of claim 6, wherein said connectivity
2 measure employs the following mathematical formula:

$$C(E,L) = \sum_{1 \leq k \leq N} [w(k) + C(k,L-1)/f_d]$$

$$C(E,0) = 0$$

5 where C (E,L) denotes connectivity of entity E at
6 depth L where E has N direct interactions, w(k) is the
7 weight of direct interactions from k, and f_d is the decay
8 factor.

1 8. The method of claim 1, wherein said diversity
2 measure is a recursive mathematical algorithm that employs
3 a decay factor to account for the effects of indirect
4 interactions among entities.

1 9. The method of claim 8, wherein said diversity
2 measure employs the following mathematical formula:

$$D(E,L) = \sum_{1 \leq k \leq N} [v(k,p) + D(k,L-1)/f_d]$$

$$D(E,0) = 0$$

5 where, $D(E,L)$ denotes diversity of entity E at depth L
6 where E has N direct interactions, and $v(k,p) = 0$ if the
7 property of k along the diversity dimension of interest is
8 already within p, where p is a set of properties
9 encountered so far, including the property of E or
10 otherwise, $v(k,p) = 1$.

1 10. The method of claim 1, wherein said displaying
2 said processed interaction data comprises generating an
3 organization view where interactions among entities of an
4 organization are represented graphically.

1 11. The method of claim 1, wherein said displaying
2 said processed interaction data comprises generating a
3 group view where entities of a predefined group and their
4 pre-specified attributes are represented graphically.

1 12. The method of claim 1, wherein said displaying
2 said processed interaction data comprises generating an
3 individual view where interactions relating to a specific
4 entity are represented graphically.

1 13. The method of claim 1, wherein said displaying
2 said processed interaction data comprises generating a

3 cluster view where interactions among predefined units of
4 entities are represented graphically.

1 14. The method of claim 1, wherein said displaying
2 said processed interaction data comprises generating a
3 people map where said connectivity and diversity measures
4 for predefined units of entities are represented
5 graphically.

1 15. The method of claim 1, wherein said displaying
2 said processed interaction data comprises generating a
3 topical view where the view generated is dependent upon a
4 predetermined interaction topic.

1 16. The method of claim 1, which further comprises
2 generating a report based on results of the interaction
3 analysis.

1 17. A system for interactive visual analysis of
2 interactions among entities, where entities are individuals
3 or groups, which comprises:
4 a computer having a microprocessor and a storage unit;

5 a database electronically coupled to said computer for
6 storing interaction data, auxiliary information and any
7 additional data derived from said interaction data;

8 algorithms stored in said storage unit and operable by
9 said microprocessor for measuring connectivity and
10 diversity of entities based on their interactions;

11 a set of programs for accessing interaction data and
12 generating views dynamically;

13 a display screen electronically coupled to said
14 computer for providing a user interface, said user
15 interface providing appropriate controls for displaying and
16 interactively manipulating each generated view;

17 a user input device electronically coupled to said
18 computer; and

19 a user selectable element of said user interface being
20 responsive to user input via said user input device to
21 generate a report based on analysis results.